

SUPPLEMENT TO
REPORT NO

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parachuted. Such take-offs were performed only in good weather. No accidents were ever seen. A four-engine aircraft with a device similar to a turbojet fitted above the fuselage was also observed. No smoke trail was seen when this aircraft took off. (2)

3. The assembly of V-1 and V-2 missiles was observed in the large workshop of Plant No 456. However, they were disassembled and packed in crates for shipment. Cylinders, 8 meters long and 2 to 2.5 meters in diameter, were stocked there. (3)
4. One source personally observed experiments with V-2 "launching agents" conducted at the launching tower of the airfield. PWs, who allegedly had seen such towers at German V-2 launching sites, confirmed the fact that the experiments concerned V-2 missiles. A German engineer stated that experiments with power units were started during the spring of 1948. The German chief engineer told this source that all German engineers at Zavod No 456, some of whom came from Jena, were V-2 and take-off-assist unit specialists. Since each of these experts had specialized only on certain parts of the missiles, it was anticipated that their combined research would unlock the secrets of the V-2. Source was certain that this project at Zavod 456 was not finished as of March 1949. (4)
5. The test launchings were observed one to three times daily between June 1948 and March 1949. About one hour before the launchings began, two special trucks would arrive up to the north side of the tower, an area which could not be observed. These trucks were similar in shape to the special railroad cars used for liquid oxygen but were only half as large. It was assumed that they were railroad cars which had been converted for road traffic. It was assumed that liquid oxygen was drawn from these trucks because the blue painted pipes, leading from the cylinders at the south side of the tower into the interior, became frosted, and because the special railroad cars seen near the plant carried the black inscription "Zhidki Kislorod" (liquid oxygen). (5) About 20 minutes after the arrival of the first two trucks, another truck would drive up to the south side of the tower. An object shaped like the cork of a champagne bottle was once noticed through the canvas cover of the truck. It was about as tall as a man but more slender. Where this object was transported was not known but, according to PWs, it was a fuse unit. (6) About 30 minutes later a bell would ring and all personnel in the fenced-in vicinity of the tower had to take shelter. Civilians went into the bunker, and PWs at the construction site would lie prone. After a second or third ring of the bell two detonations were heard at very short intervals. The first detonation produced a deep noise, the second was similar to that of a "Katyusha", a Soviet rocket launcher, but the howling lasted about 30 seconds and was much louder. Simultaneously a 100 meter long trail of fire was observed north of the tower. As a result of the heat generated by the launching operation, the air vibrated, but smoke was not observed. Occasionally, only the first detonation could be heard. In such cases the experiments were repeated some hours later. Although the first detonations were always equal in length, sound and strength, subsequent detonations would vary in length and fire intensity. Everybody left the shelters after the second detonation. The PWs were always frightened during these experiments, which were known to be performed in a poor and unsafe manner.
6. It was learned from a German engineer that all "mixtures" of liquid oxygen and methyl alcohol were produced in the tower. The guided missiles were never seen and no details could be given on any apparatus or installations in the tower. It was assumed that the launchings were prepared in the cage-like top section of the tower. The purpose of the two containers in this section could not be determined. Source only remembered their shape and stated that they obviously had a tin foil coating. A German engineer said that experiments on fuel compounds were also performed in the cage.

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7. Another source observed the launching tests between September 1948 and March 1949. According to this source, at about 10:30 p.m. every night, two to four light phenomena were seen and noises were heard at a distant point behind the Mark railroad station, near Vinogradovo (55°25'N/38°35'E), in the direction of Moscow. The light, which lasted 30 to 60 seconds, began with a faint red color lasting about five seconds, and then became a bright white flare. As the loud roaring and hissing noise was heard many seconds after the light was first observed, the distance from the launching site was estimated to be about 10 km. Other sources believed the launching site was about 500 meters north of the Mark railroad station. (7)
8. One source estimated the labor force of plant No 456 at 300; another source estimated 400 to 500 workers per shift; a third source reported 2,000 laborers working one shift in the plant and 20 men working three shifts at the test stand. All sources confirmed the previously reported employment of German engineers at Plant No 456. One source, who became a friend of Engineer Haase (fnu), learned that 20 German engineers worked on the reconstruction of V-2 type missiles. After the completion of this project in mid-1949, three engineers were transferred to an island 50 km southwest of Leningrad. The remaining engineers feared that they too would be transferred. A letter from Mr Haase to this source indicated that he was still in Khimki in February 1950. (8)

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Comments.

- (1) For sketches of the launching towers see Annexes 1, 2 and 3. For layout of Plant No 456 see Annex 4. The oxygen plant is reported for the third time. It is unusual that such an installation should have been constructed near the launching tower and that oxygen should still have been supplied to Plant No 456 in special railroad tank cars.
- (2) For sketches of the aircraft observed at this field, see Annexes 5 and 6. The opening in the nose of the parasite plane does not necessarily indicate a turbojet unit, but might be provided for armament or rocket units. It is possible that the parasite was equipped with a rocket power plant and may have landed in a glide without any noise which would account for the fact that landings were not observed. No definite conclusions can be drawn concerning the type of fuel used with the booster rockets. It is assumed that the observed take-off-assist units were developed from the Walter unit, which had a vapour trail rather than a fire trail. However, since these observations were made by inexperienced sources, the word "smoke trail", which has been mentioned in previous reports, should be treated with reserve.
- (3) According to all reports received to date, the only complete V-1 and V-2 missiles observed at the plant were German models which arrived in 1947. Only power units for the V-2 were produced and tested at the plant. The repeatedly reported production of V-1 missiles is doubted. Identifying sketches were not obtained. The alleged V-1 missile is assumed to be a parasite fighter aircraft of a converted V-1 design, which was being tested at the Khimki airfield.
- (4) The statements of the German engineer apparently were partly misunderstood. It is believed that various experts cooperated in the V-2 development. However, the present report indicates that Soviet research did not tend toward an identical reproduction of the German V-2 but rather toward improvements, especially in the field of fuel and utilization.
- (5) For sketches of these special railroad cars, see Annex 7.
- (6) This is the V-2 propulsion unit.
- (7) First indications of the existence of a V-weapon test plant in Khimki were observed near Vinogradovo. The present report deviates from previous reports in some details such as time observed, period of noise, light, etc., but confirms the assumed activities at the plant.

- (8) On the basis of all available information the work force is estimated at 1000; about 400 German engineers. (fnu) From Berlin was well known a number of German engineers who had been working in the V-2 project.

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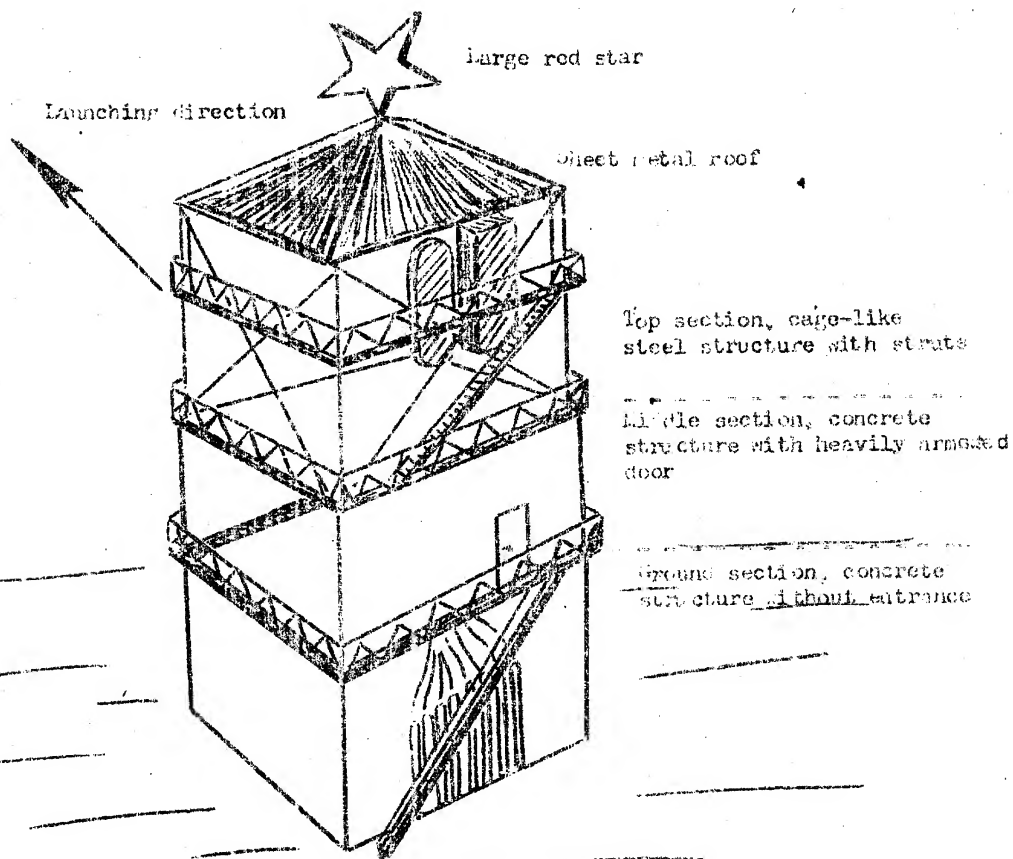
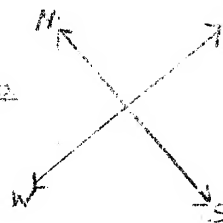
Dr. Putze, chief of the group of deported German scientists, was released with his group to the Soviet Zone of Germany in October 1950.

7 Annexes: Sketches on ditto.

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Launching Tower for tests with V-weapons at Moscow Airbase

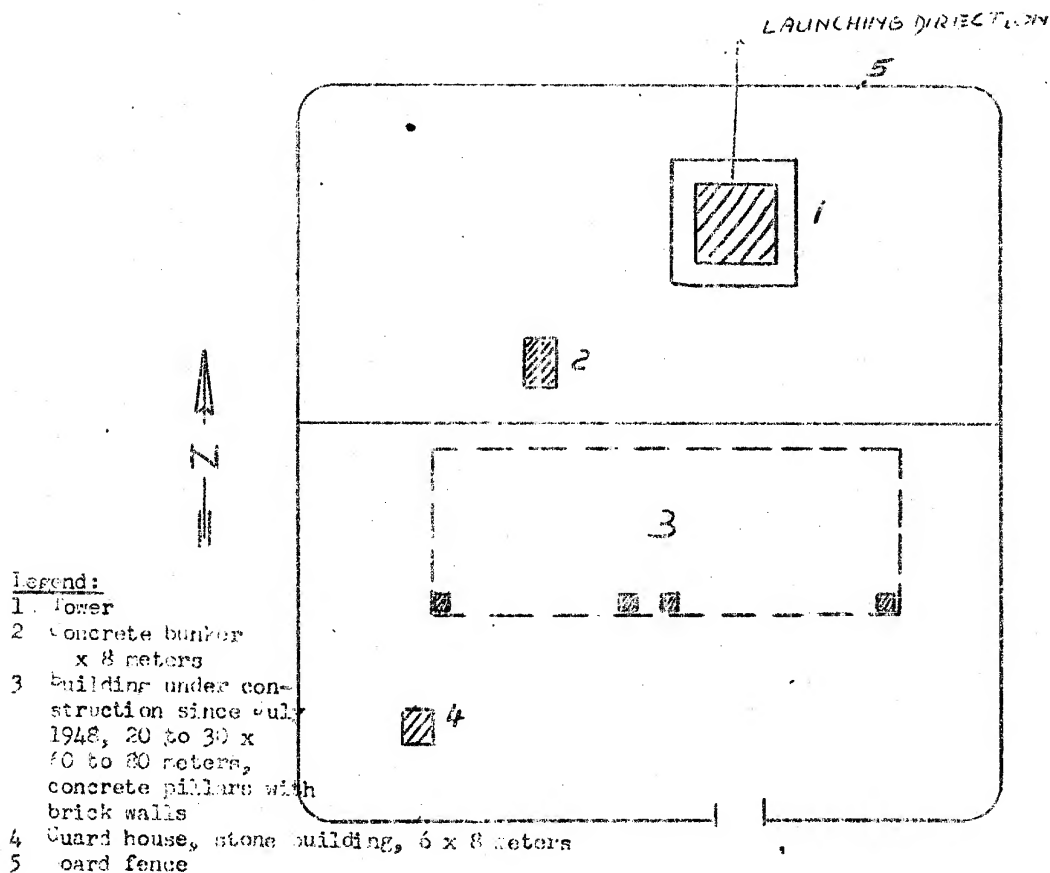


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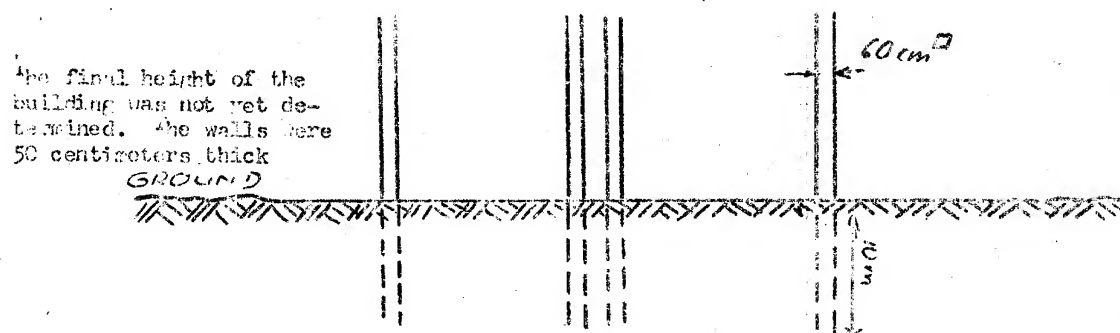
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Location of V-weapon launching tower at Airst. No. 430
in Moscow Khimki



Side view of No. 3 above

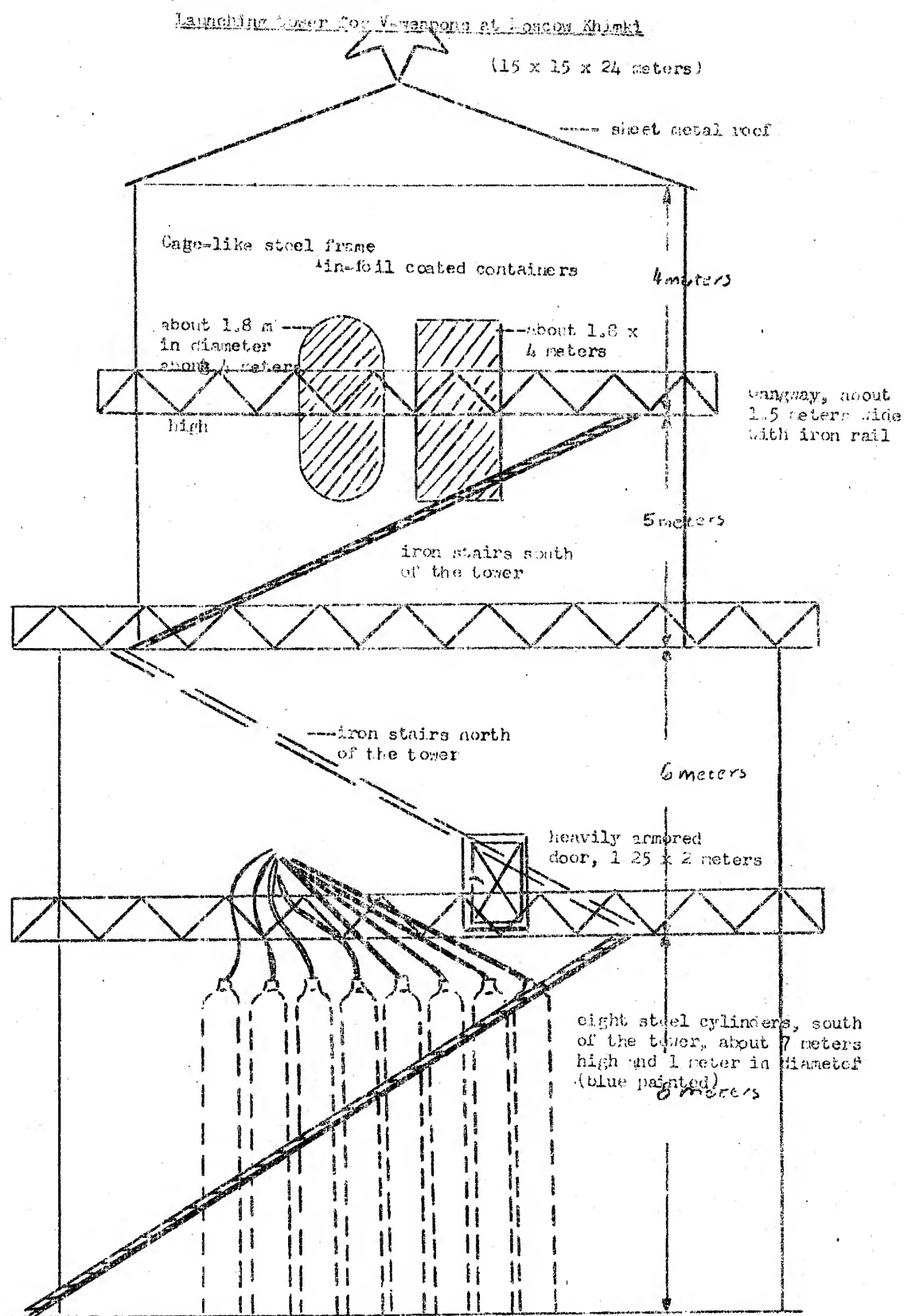


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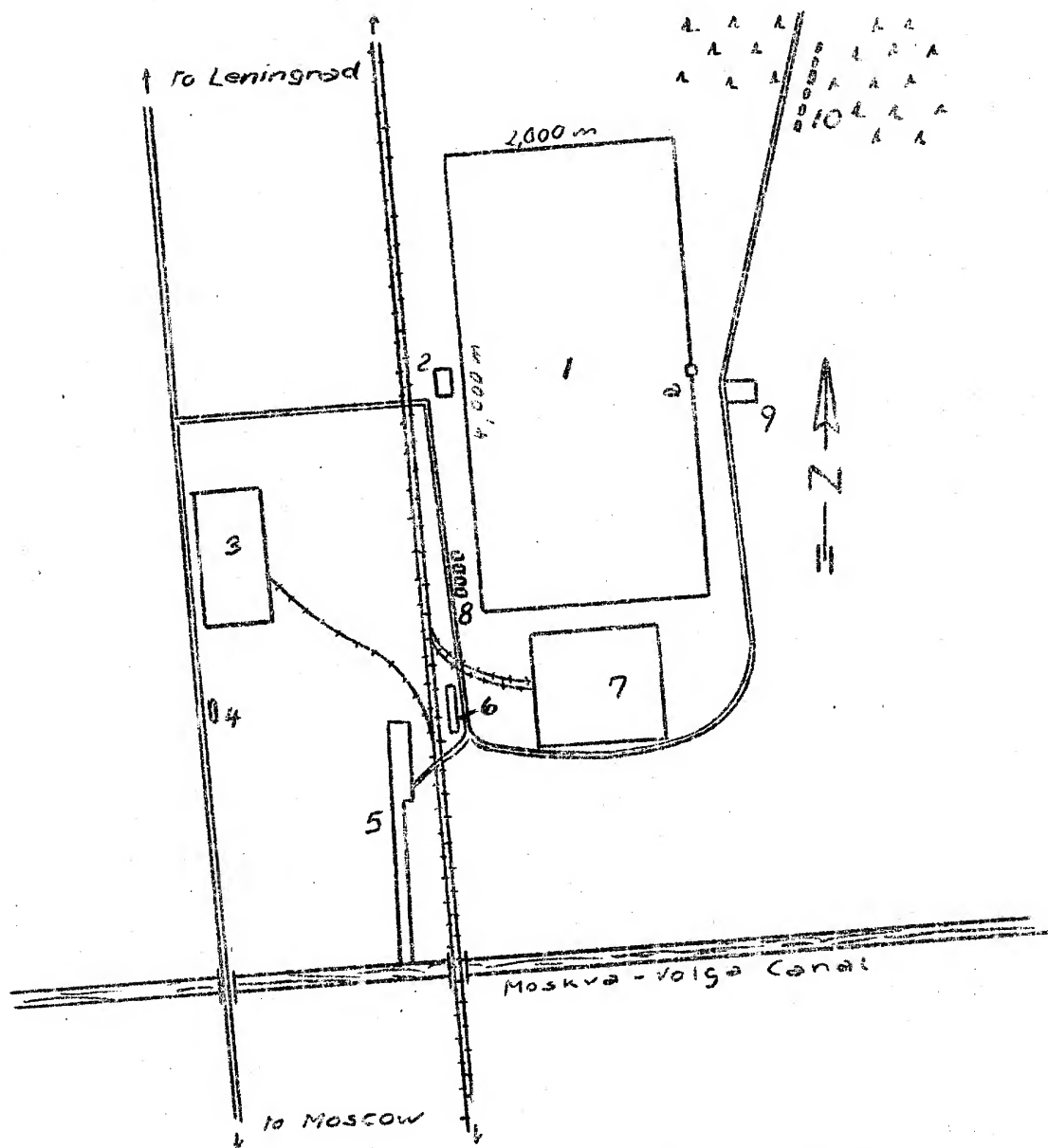
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Vacation Plant No. 456 in Moscow Khimki



scale about 1:50,000

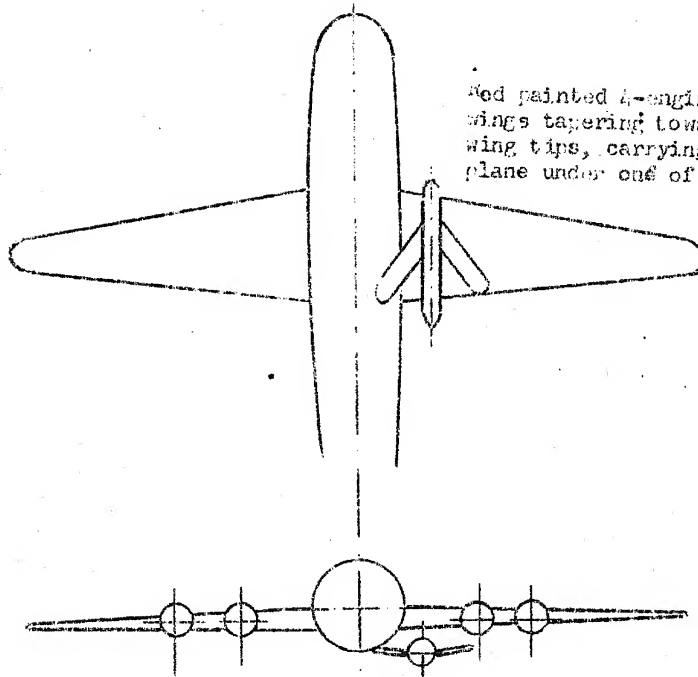
Legend:

1. Airfield.
 - a. launching tower.
2. FW camp No. 7851.
3. Plant No. 301.
4. Food processing plant.
5. Railroad station and harbor.
6. Railroad station.
7. Plant No. 456.
8. Cantonment.
9. Oxygen plant.
10. Settlement for German engineers (?)

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Aircraft observed at Moscow Biskai Airfield

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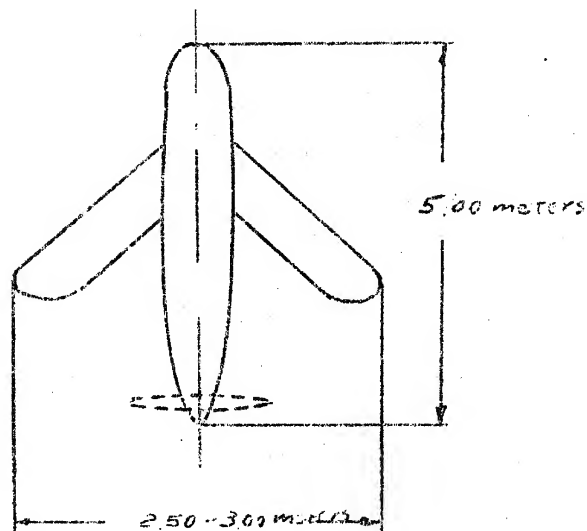


Red painted 4-engine aircraft with wings tapering toward the rounded wing tips, carrying one parasite plane under one of the wings

Front view of 4-engine plane

Parasite aircraft suspended from 4-engine aircraft

B

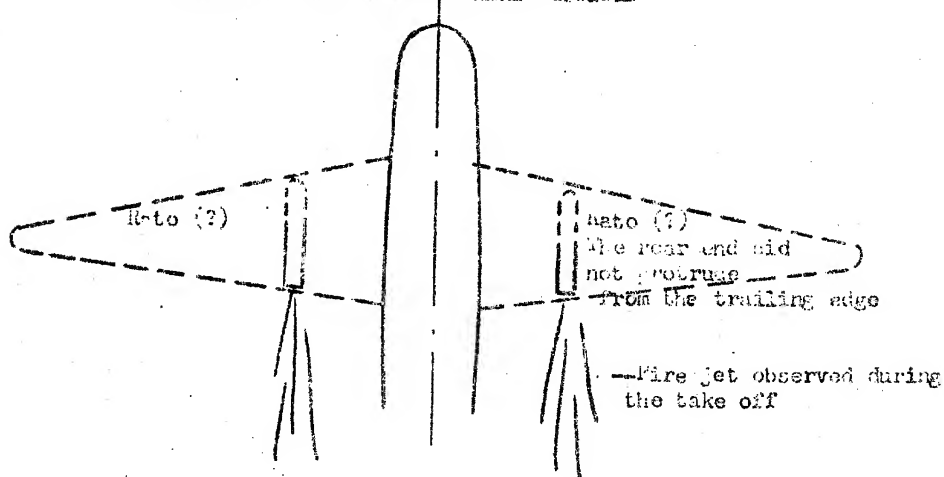


The tail assembly was not remembered

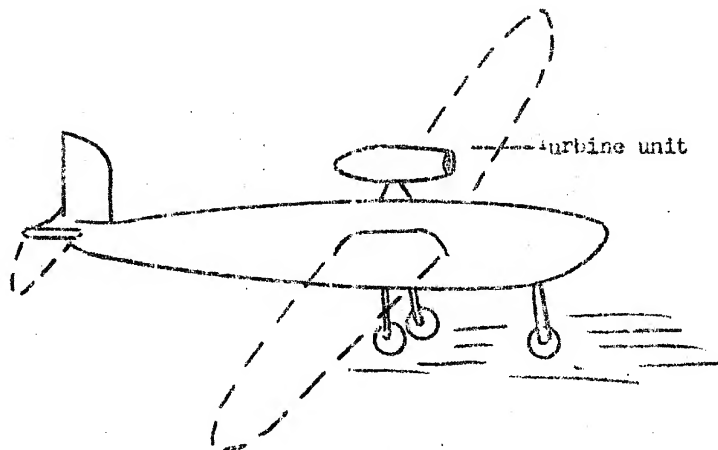
Center in the nose of the parasite.

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Experimental four-engine aircraft with take-off unit
observed at the Moscow Minski Airfield

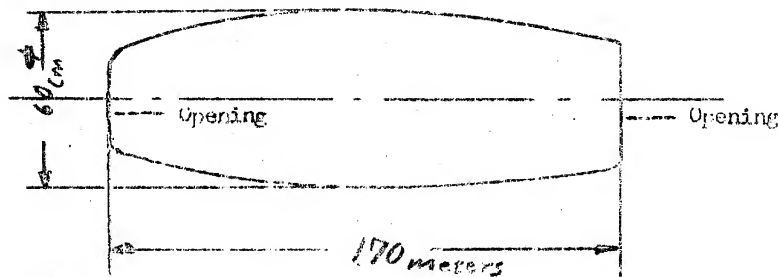


Four-engine aircraft with take-off assist unit



Shape and dimensions of the four-engine aircraft were not remembered. It was recalled however that the plane always stood and also landed on the main landing gear and on the nose wheel. The tail never touched the ground. The turbo-jet unit was fitted between the wing roots on the fuselage. The whole plane and the auxiliary power plant were painted green.

Turbo-jet power plant carried by a four-engine aircraft



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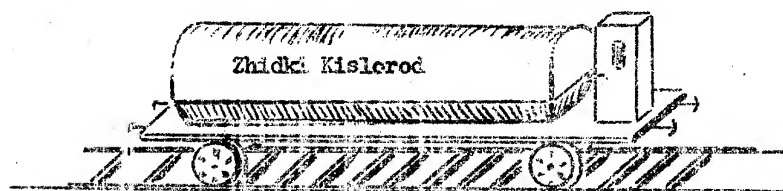
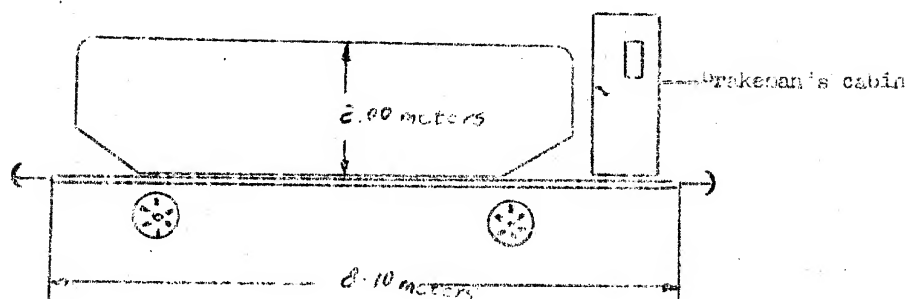
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Attachment 7

Special Railroad Tank Cars for Liquid Oxygen
Observed at Plant No. 456 in Moscow Khimki



Gross section



On hot days the railroad cars were cooled with water. Zavod No. 456 owned two such cars. They were painted with silver bronze.

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